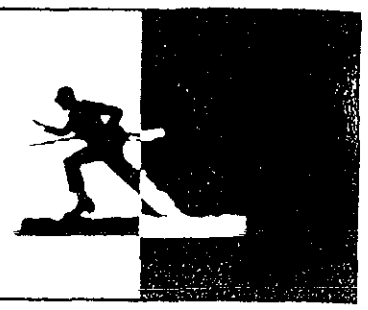
TRAINING NOTES



Land Navigation

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When was the last time you were lost? How many of your soldiers would have been lost in a similar situation? My guess is most of them, because the level of proficiency in land navigation in our Army is far below what it should be. This is directly attributable to the way we train.

The training problem starts in basic or one-station unit training (OSUT) with the eight-hour block of land navigation/map reading instruction. Although this is too little time to learn the subject, it is also time wasted, because land navigation has to be taught on the ground. In OSUT, map reading is taught in a classroom, then the soldiers go in large groups on a terrain walk. It is a situation in which the fast learners and the well-motivated answer all the questions while the others hang back and just go along for the walk.

There is, of course, no way BCT or OSUT will make a soldier competent in land navigation; that's a unit responsibility. Unfortunately, there are usually serious problems with unit land navigation training as well.

The first is that in most units land navigation training is rarely done. The few unit leaders who can navigate carry those who cannot. This lack of training becomes obvious during EIB testing or when small units or maintenance contact teams are sent out.

If a unit does conduct land navigation training, it is usually in a local training area where everyone already knows every trail and rock, so little real navigation is done. Also, in the interest of safety, courses are run in groups of two or three soldiers, and the strongest navigator does all the work and is the only one who benefits from the training. Another common problem, unfortunately, is cheating. On most courses I have seen, there was far too much unauthorized assistance.

These problems can be overcome through training. With proper training, the vast majority of our soldiers can develop effective land navigation skills. Implementing such training, however, takes work, just as any other training does.

LAYING OUT COURSES

If you become responsible for this kind of training, get out before the first training period and lay out both day and night courses, preferably on unfamiliar terrain. Choose an undeveloped area with few roads; determine your boundaries; then on a map choose sites for individual points based on such prominent features as hills, streams, ruins, and the like. Then and only then, go out and walk the ground.

You can make point markers from a number of materials. The orange and white orienteering bags, for example, are excellent if your unit can afford them. If not, paint the tops of cans a bright color and use these as markers. For night courses, use fluorescent paint or small lights.

All signs should be at eye level and not obscured by foliage, and each should have a color and number. If you want the course to be self-correcting (that is, to allow a soldier who misses one point to follow instructions on subsequent signs and earn partial credit), write down instructions for each group below each sign. (Another method would be to have a cadre member at each point to give further instructions, but this is, of course, more labor-intensive.) The points should be placed so that a soldier cannot reach each one by navigating solely on roads. Rarely is terrain so rugged that it cannot be crossed on foot.

Once you have laid out the various courses, prepare your safety briefing and present it to the leaders who will be assisting you. This briefing should include a large diagram of the area, the outer boundaries, a visual signal (such as a flare or strobe light) and an auditory signal (such as a whistle) for use in an emergency, a return-not-later-than time, and clear instructions on how the course is to be conducted. When you have completed all of the necessary briefings, your unit should be brought to the field.

My plan calls for a five-day bivouac at the site, with all of the training conducted in the field. (Other tactical skills can be incorporated during that time, but the

focus should be on land navigation.) On Day 1, the squad leaders start the training by teaching basic map reading to their soldiers; if your squad leaders are not proficient, use your officers. These classes should cover marginal information, reading grid coordinates, use of a protractor, scale and contour interval, and terrain analysis. Of course, every soldier should have a map of his own, and a compass and watch for the training conducted later.

The map reading phase should be followed by a terrain walk so that the soldiers can see what the map information actually looks like on the ground. To make sure everyone participates, each soldier should be required to plot each point, find each location, and plan each route. This instruction and terrain walk should take a full day.

Problems with land navigation can be overcome through training.

Day 2 should begin with a short review of the instruction given on the previous day. Following that review, instruction should begin on how to use a compass, to include how to orient a map with a compass, change coordinates from magnetic north to grid north and grid north to magnetic north, the use of steering marks, the offset method of navigation, and the use of a compass to cross or bypass obstacles. (A station should be set up to test each compass.)

Each soldier should then walk a pace course—actually, three pace courses, each about 600 meters long, one over flat terrain, one over hilly terrain, and one over steep terrain. On each, the soldier should determine his pace based on both the number of steps he made and the time it took him to complete the course. He should record this data. A short class should then be given to explain the importance of pace counts in land navigation.

Armed with his newly acquired compass skills and pace count, each soldier should be required to use these skills on a short compass course of four or five points, each 800 to 1,200 meters apart. Following this course, remedial instruction should be given to those who had difficulty in running it correctly.

That same night, a night compass course should be run. Each lane should have four points, 1,500 to 2,000 meters apart. Each soldier should run this course alone. He can be allowed to use a military flashlight to reduce the risk of injury. The markers at each point, of course, should be fluorescent or have a small light attached, and they should be on prominent terrain features. The course must be a cross-country one that requires the soldiers to rely on their compasses. Boundaries should be as prominent as possible. The most important aspect of the course is that each soldier must run it *alone*. A soldier gains tremendous confidence when he discovers he can navigate at night.

Day 3 should consist of a long cadre-led land navigation problem, in which each soldier plots each point and determines a route to each. A soldier should be picked out of the group to lead, and this position should be rotated frequently. The cadre member with each group should be there only to answer questions and to emphasize such teaching points as route selection, pace, and contour intervals. With practice, most soldiers can identify ground by the nature of the contour intervals. The lanes should be long, three to five kilometers to each point, and similar in all respects to what the soldier can expect to navigate on his own.

Day 4 is the day that the soldier goes it alone on an actual land navigation course. The soldiers should be started at different points, at different times, and in different color groups. In short, you must do everything you can to ensure that a soldier succeeds or fails on the basis of his own performance, not unauthorized assistance. As was the case with the night course, there must be clear boundaries, a return not-later-than time, and a safety briefing.

Five or six points, three to five kilometers apart, will make up a full day's effort. After the course, you should conduct a critique and provide remedial training to the soldiers who failed.

Day 5 should consist of a land navigation problem similar to the one conducted on Day 4 but with each soldier assigned a different lane and with each running the course for time. The top finishers should be recognized.

At the end of this five-day period of training, your soldiers should be quite proficient in land navigation. A nice thing for them to know is that once a person knows how to navigate he seldom forgets it. Running a course every six months, or even once a year, should be enough for them to maintain their proficiency.

A commander may not be able to measure the effect of good land navigation training on his unit, as he can with improved marksmanship scores or better PT test scores, but he can see and feel the confidence his soldiers have when they know where they are and how to get where they are going next.

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